What is claimed is:

1. A method for reducing tissue damage associated with an ophthalmic procedure in a subject, comprising administering an antisense compound to the eye of said subject in conjunction with said procedure in an amount sufficient to inhibit the expression of a connexin protein in the eye or in cells associated with the eye of said subject.

2. A method for tissue engineering in association with an ophthalmic procedure, comprising administering an antisense compound to the eye of a subject in an amount sufficient to inhibit the expression of a connexin protein in the eye or in cells associated with the eye of said subject and modulate the proliferation, migration, or differentiation of cells in the eye or on cells associated with the eye of said subject.

3. A method of promoting the accumulation of epithelial cells in the eye or in a tissue associated with the eye of a subject comprising administering an antisense compound to the eye of a subject in an amount sufficient to inhibit the expression of a connexin protein in the eye or in cells associated with the eye of said subject.

4. A method of inhibiting hypercellularity in the eye or in a tissue associated with the eye of a subject comprising administering an antisense compound to the eye of a subject in an amount sufficient to inhibit the expression of a connexin protein in the eye or in cells associated with the eye of said subject.

5. A method of any one of claims 1-4 wherein said antisense compound is selected from the group consisting of antisense oligonucleotides, antisense polynucleotides, deoxyribozymes, morpholino oligonucleotides, RNAi molecules, siRNA molecules, PNA molecules, DNAzymes, and 5'-end –mutated U1 small nuclear RNAs, and analogs of the preceding.

6. A method of any one of claims 1-5 that is an ophthalmic procedure is an ophthalmic surgery selected from an excimer laser photorefractive keratectomy, a cataract extraction, corneal transplant, a surgery to correct refraction, a surgery to replace a lens, a radial keratotomy, a glaucoma filtration surgery, a keratoplasty, or other types of surgery to correct refraction or replace a lens.

7. The method of claim 6 wherein said antisense compound comprises a nucleobase sequence selected from SEQ ID NO:1-11.

8. The method of claim 6 wherein said antisense compound is targeted towards one or more of connexin 43, 26, 37, 30 and /or 31.1.

9. The method of claim 6 wherein said antisense compound is targeted to at least about 8 nucleobases of a nucleic acid molecule encoding a connexin having a nucleobase sequence selected from SEQ ID NO:12-31.

10. The method of claim 9 wherein a second antisense compound is administered to the eye of said subject, wherein said second antisense compound is targeted to at least about 8 nucleobases of a nucleic acid molecule encoding a connexin having a nucleobase sequence selected from SEQ ID NO:12-31, wherein said second antisense compound is targeted to a different connexin than the antisense compound of claim 4.

11. The method of claim 3 wherein said antisense compound compound is an antisense oligonucleotide of between 15 and 35 nucleobases in length.

12. The method of claim 6 wherein said antisense compound is targeted to at least about 12 nucleobases of a nucleic acid molecule encoding a connexin having a nucleobase sequence selected from SEQ ID NO:12-31.

13. The method of claim 6 wherein said antisense compound is targeted to at least about 18 nucleobases of a nucleic acid molecule encoding a connexin having a nucleobase sequence selected from SEQ ID NO:12-31.

14. The method of claim 6 wherein said antisense compound is targeted to at least about 25 nucleobases of a nucleic acid molecule encoding a connexin having a nucleobase sequence selected from SEQ ID NO:12-31.

15. The method of claim 3 wherein wherein said antisense compound comprises a nucleobase sequence selected from SEQ ID NO:1-11.

16. The method of claim 6 wherein said antisense compound is an antisense oligonucleotide comprising naturally occurring nucleobases and an unmodified internucleoside linkage.

17. The method of claim 6 wherein said antisense compound is antisense oligonucleotide comprising at least one modified internucleoside linkage.

18. The method of claim 17 wherein said modified internucleoside linkage is a phosphorothioate linkage.

19. The method of claim 6 wherein said antisense compound is an oligonucleotide comprising at least one modified sugar moiety.

20. The method of claim 6 wherein said antisense compound is an oligonucleotide comprising at least one modified nucleobase.

21. A method of claim 6 wherein said antisense compound is administered by local or topical administration.

22. A method of claim 6 wherein said antisense compound is administered by direct application in the surgical wound.

23. A method of claim 6 wherein said antisense compound is administered by intraocular injection.

24. A method of claim 6 wherein said antisense compound is used in combination with a second compound useful for reducing tissue damage or promoting healing.

25. A method of claim 6 wherein said second compound is a growth factor or cytokine.

26. A method of claim 25 wherein said second compound is selected from a growth factor, cytokine, or the like, including but not limited to FGF, NGF, NT3, PDGF, TGF, VEGF, BDGF, EGF, KGF, integrins, interleukins, plasmin, and semaphorins.

27. The method of claim 6 wherein said antisense compound is administered at a predetermined time.

28. A method of claim 6 wherein said antisense compound is administered before said surgical procedure is performed.

29. A method of claim 6 wherein said antisense compound is administered during said surgical procedure.

30. A method of claim 6 wherein said antisense compound is administered within 2 hours after said surgical procedure is performed.

31. A method of claim 6 that is performed in association with an excimer laser photorefractive keratectomy procedure in said subject.

32. A method of claim 6 wherein the ophthalmic surgery is cataract extraction.

33. A method of claim 6 wherein the ophthalmic surgery is a corneal transplant.

34. A method of claim 6 wherein the ophthalmic surgery is surgery to correct refraction.

35. A method of claim 6 wherein the ophthalmic surgery is surgery to correct refraction is radial keratotomy.

36. A method of claim 6 that promotes healing or prevents tissue damage in cells associated with the cornea of the subject.

37. A method of claim 6 wherein the ophthalmic surgery is glaucoma filtration surgery.

38. A method of claim 6 wherein the ophthalmic surgery is keratoplasty.

39. A method of claim 6 that increases the thickness of cornea tissue in said subject.

40. A method of claim 6 wherein tissue damage is reduced in corneal cells of said subject.

41. A method of claim 6 wherein tissue damage is reduced in cells associated with the cornea of a subject.

42. A method of claim 6 that reduces hazing in the eye of said subject.

43. A method of claim 6 that reduces scarring in the eye of said subject.

44. A method of claim 6 that modulates hypercellularity associated with myofibroblast differentiation associated with a site of a laser induced lesion in the 24 hr to 48 hr post-surgery period.

45. A method of claim 6 that modulates stromal remodeling and reduces haze associated with a site of a laser-induced lesion in the 24 hr to 72 hr post-surgery period.

46. A method of claim 6 wherein said ophthalmic procedure is an excimer laser procedure and said method reduces the hypercellularity of stromal cells in said subject.

47. A method of claim 6 wherein said ophthalmic procedure is an excimer laser procedure and said method promotes the re-epithelialization in the cornea of said subject.

48. A method of claim 6 that increases epithelial cell movement in the eye of said subject.

49. A method of claim 48 that results in an increase in epithelial cell movement within 12 hours of administering said antisense compound to the eye of said subject.

50. A method of claim 48 that results in an increase in epithelial cell movement within 24 hours of administering said antisense compound to the eye of said subject.

51. A method of claim 6 that results in an increase in stromal density in the anterior stroma without resulting in an increase in the stromal density of the posterior stroma in the eye of said treated subject.

52. A method of claim 6 that inhibits stromal edema associated with a site of a laser induced lesion in the 24 hr to 72 hr post-surgery period.

53. A method of claim 6 that reduces epithelial hyperplasia in the 24 hr to 72 hr post-surgery.

54. A method of claim 6 that reduces myofibroblast activation up to 1 week post-surgery.

55. A method of claim 6 that modulates cell differentiation that modifies the extracellular matrix.

56. A method of claim 6 that reduces cell proliferation.

57. A method of treating an injury to the central nervous system, the method comprising administering an antisense compound to a site proximal to a preexisting wound of the central nervous system in association with a surgical procedure performed on a subject to treat said injury to the central nervous system, wherein said antisense compound is targeted to at least about 8 nucleobases of a nucleic acid molecule encoding a connexin having a nucleobase sequence selected from SEQ ID NO:12-31.

58. The method of claim 57 wherein said injury to the central nervous system is a spinal cord injury.

59. The method of claim 57 wherein said antisense compound is administered to a subject at least 24 hours after a physical trauma to the spinal cord.

60. The method of claim 57 wherein said antisense compound is administered in conjunction with a procedure to graft nerve tissue into a spinal cord injury region of a subject.

61. The method of claim 57 wherein said antisense compound decreases scar formation.

62. The method of claim 57 wherein said antisense compound reduces inflammation.

63. The method of claim 57 wherein said antisense compound promotes wound healing.

64. The method of claim 57 used in association with a surgical implantation procedure.

65. The method of claim 57 wherein said antisense compound is directed to connexin 43 and is administered to regulate epithelial basal cell division and growth.

66. The method of claim 57 wherein said antisense compound is directed to connexin 31.1 and is administered to regulate outer layer keratinisation.

67. Use of a antisense compound in the preparation of a medicament for reducing tissue damage associated with an ophthalmic procedure, wherein said antisense compound inhibits the expression of a connexin protein in the eye or in cells associated with the eye of a subject.

68. Use of a antisense compound in the preparation of a medicament for tissue engineering in association with an ophthalmic procedure, wherein said antisense compound inhibits the expression of a connexin protein in the eye or in cells associated with the eye of a subject.